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EXAMINER

MANNING, JOHN

ART UNIT PAPER NUMBER

2614

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/653,381

Applicant(s)

BAYRAKERI ET AL.

Examiner

John Manning

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/23/01, 1/23/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14, 17 and 19-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (US Pat No 6,675,385) in view of Legall et al. (US Pat No 6,005,565).

In regard to claim 1, Wang discloses an "MPEG-2 digital TV headend and settop box includes a method and apparatus for enabling the presentation of electronic program guide (EPG) information" (Abstract). Wang discloses receiving, from service provider equipment, an interactive program guide (IPG) comprising a plurality of IPG pages conveyed by respective image streams, each of said IPG panes including an object and a respective portion of IPG imagery. "At the receiving side in settop box 24, the MPEG-2 decoder 26 decodes the received MPEG-2 data streams and reconstructs the EPG Web pages retaining HTML format. EPG information is organized into a group of linked EPG Web pages" (Col 4, Lines 41-45). Figure 4 depicts objects displayed in conjunction with IPG imagery. Wang fails to explicitly disclose, "receiving one or more

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search criteria via user interaction with said search object", "sending a request for a search along with the one or more search criteria to a head end of an information distribution system", "receiving at least one search result from the service provider equipment" or that "the program guide database is searched at the service provider equipment". Legall discloses a search tool that enables a user to search an electronic program guide. Legall teaches "receiving one or more search criteria via user interaction with said search object", "sending a request for a search along with the one or more search criteria to a head end of an information distribution system", "receiving at least one search result from the service provider equipment" and that "the program guide database is searched at the service provider equipment" so as to allow a user to "perform searches that can be carried across a variety of information platforms" (Col 1, Lines 26-27). The claimed method is met as follows: the claimed step of "receiving one or more search criteria via user interaction with said search object" is met by Figure 3B, item 375 of Legall. A "user, using a search tool window 302 (e.g., window 375, FIG. 3b), can establish the topics that form elements of a filter 304 that is input to a search engine 306" (Col 3, Lines 11-14). The claimed steps of "sending a request for a search along with the one or more search criteria to a head end of an information distribution system" and claimed step of "receiving at least one search result from the service provider equipment" are met by Figure 3A of Legall. "The power search tool includes query tools for specifying and selecting the filter elements used to perform the search" (Col 2, Lines 62-64). The "search results can be provided by the content-provider so that the receiving user system does not have to perform a search" (Col 5, Lines 44-46).

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The claimed step "wherein the program guide database is searched at the service provider equipment" is met by Figure 3A of Legall. "The user can select the information sources to be searched, such as the World Wide Web and electronic program guide (EPG) information" (Col 2, Lines 64-66). Consequently, it would have been obvious to one of ordinary skill in the art to modify Wang with "receiving one or more search criteria via user interaction with said search object", "sending a request for a search along with the one or more search criteria to a head end of an information distribution system", "receiving at least one search result from the service provider equipment" and that "the program guide database is searched at the service provider equipment" so as to allow a user to "perform searches that can be carried across a variety of information platforms" (Col 1, Lines 26-27).

In regard to claim 2, the claimed method of "displaying an interactive program guide (IPG) page having include therein at least one received search result" is met by Figure 2, Item 220 of Legall. "Window 220 adapts the EPG window to display the result of broadcast data query" (Col 2, Lines 57-58).

In regard to claim 3, the claimed method of "highlighting a channel object on the displayed IPG page corresponding to one received search result" is met Figure 2 of Legall. The "areas of the EPG corresponding to programs that meet the criteria are highlighted by a different color" (Col 4, Lines 53-55).

In regard to claim 4, the claimed method "wherein the channel object is highlighted by placing a cursor on the channel object" is met Figure 2 of Legall. The "user may indicate selection by using a remote control to enter the station number ID or

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by moving the cursor to point to the desired program" (Col 4, Lines 60-63). The cursor "highlights" or indicates the program to be selected.

In regard to claim 5, the claimed method is met as follows: the claimed steps of "receiving an indication that the highlighted channel object has been selected; retrieving one or more streams associated with the selected channel object; and decoding the one or more retrieved streams to recover a selected program" are met by Figures 2 and 3B of Legall. The "user is able to change the current broadcast 625 to one of the programs currently broadcast that meet the search criteria. For example, this might be done by selecting a program from the modified EPG. Selection may be achieved a variety of ways. For example, the user may indicate selection by using a remote control to enter the station number ID or by moving the cursor to point to the desired program. The system then responds by tuning to the program selected (the program being one of the programs that meets the search criteria)" (Col 4, Lines 56-65).

Claim 6 is met by that discussed above for the method of claim 5.

In regard to claim 7, the Legall discloses saving "searches performed for subsequent references" (Col 3, Line 7). "Receiving an indication to view a next search result" and "displaying an EPG page included therein the next search result" is inherent to the reference.

In regard to claim 8, it is noted that the examiner interprets "one or more" to be written in the alternative, such that the limitation may be met by either one or more. Therefore, claim 8 met by that discussed above for claim 2.

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In regard to claim 9, the combined teaching of Wang and Legall disclose a search tool that enables a user to search an electronic program guide. The combined teaching fails to explicitly disclose the step of receiving the search result via a stream identified by packet identifiers. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known to provide multimedia objects in the form of streaming media identified by packet identifiers so as to allow the data to be delivered and utilized at the users equipment before the entire file is downloaded on the equipment. Consequently, it would have been clearly obvious to one of ordinary skill in the art to modify the combined teaching to provide multimedia objects (i.e. the search result) in the form of streaming media identified by packet identifiers so as to allow the data to be delivered and utilized at the users equipment before the entire file is downloaded on the equipment.

In regard to claim 10, the Legall discloses that the IPG or EPG page includes only search results and no other program guide data. The reference states that the "EPG is modified to only display those programs that meet the search criteria" (Col 4, Lines 51-52).

In regard to claim 11, the combined teaching of Wang and Legall discloses a search tool that enables a user to search an electronic program guide. The combined teaching fails to explicitly disclose the step providing the search result in a particular order of relevance. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known to provide a search result in a particular order of relevance so as to allow the user to access programs of interest first. Consequently, it would have been

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clearly obvious to one of ordinary skill in the art to modify the combined teaching to provide a search result in a particular order of relevance so as to allow the user to access programs of interest first.

In regard to claims 12 and 13, the combined teaching of Wang and Legall discloses a search tool that enables a user to search an electronic program guide. The combined teaching fails to explicitly disclose the step providing the search result base on show times where show time closest to present time is provided first and the search result having a scheduled show time furthest from the present time is provided last. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known to provide a search result base on show times where show time closest to present time is provided first and a search result having a scheduled show time furthest from the present time is provided last so as to allow the user to access programs that will be starting at a time close to the present. Consequently, it would have been clearly obvious to one of ordinary skill in the art to modify the combined teaching to provide a search result base on show times where show time closest to present time is provided first and a search result having a scheduled show time furthest from the present time is provided last so as to allow the user to access programs that will be starting at a time close to the present.

In regard to claim 14, the combined teaching of Wang and Legall discloses a search tool that enables a user to search an electronic program guide. The combined teaching fails to explicitly disclose that the search results are received as video slices generated via slice based encoding from the head end. However, the examiner takes

OFFICIAL NOTICE that it is notoriously well known to use video slices generated via slice based encoding from the head end. Consequently, it would have been clearly obvious to one of ordinary skill in the art to modify the combined teaching with search results that are received as video slices generated via slice based encoding from the head end so as to conform to the MPEG standard.

In regard to claim 17, the program guide database that is searched inherently includes a plurality of programs entries for a plurality of channels for a particular time period.

In regard to claim 19, the Legall discloses searching with one or more keywords. The "information associated with a broadcast can be more than just a sequence of keywords. Keywords can be combined with logical syntactic operators such as AND, OR and NOT to produce boolean combinations of search terms and to provide a more intelligent query" (Col 5, Lines 23-28).

In regard to claim 20, the limitation recited in the preamble is met by that discussed above for claim 1. The claimed limitation of a "guide region configurable to display a listing of a plurality of channels" is met program guide show in Figure 3B of Legall. The claimed limitation of "a search window object configurable to receive one or more criteria for the search of the program guide database" is met by Figure 3B, item 375 of Legall. The claimed limitation of "wherein said IPG page is composed and rendered at a head end and operable to support a search of a program guide database" is met by that discussed above for claim 1 (See Figures 1-3 of Wang).

In regard to claim 21, the claimed limitation is met Figure 2 of Legall. The "user may indicate selection by using a remote control to enter the station number ID or by moving the cursor to point to the desired program" (Col 4, Lines 60-63). The curser "highlights" or indicates the program to be selected.

In regard to claim 22, it is inherent to the reference that depressing a particular key on the remote control unit activates objects.

In regard to claim 23, the claimed limitation is met by Figure 2, Item 220 of Legall. "Window 220 adapts the EPG window to display the result of broadcast data query" (Col 2, Lines 57-58).

In regard to claim 24, the combined teaching of Wang and Legall discloses a search tool that enables a user to search an electronic program guide. The combined teaching fails to explicitly disclose that the search results are received as video slices generated via slice based encoding from the head end. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known to use video slices generated via slice based encoding from the head end so as to conform to the MPEG standard. Consequently, it would have been clearly obvious to one of ordinary skill in the art to modify the combined teaching with search results that are received as video slices generated via slice based encoding from the head end so as to conform to the MPEG standard.

In regard to claim 25, the combined teaching of Wang and Legall discloses a search tool that enables a user to search an electronic program guide. The combined teaching fails to explicitly disclose that the search window object is composed as a

bitmap. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known to use bitmaps for representation of characters or graphics. Consequently, it would have been clearly obvious to one of ordinary skill in the art to modify the combined teaching with a search window object that is composed as a bitmap as a way to represent characters or graphics.

In regard to claim 26, the claimed limitation of "a program guide source operative to store a program guide database at said provider equipment" is met by Figure 3A of Legall. "The user can select the information sources to be searched, such as the World Wide Web and electronic program guide (EPG) information" (Col 2, Lines 64-66). The claimed limitation of "a controller coupled to the program guide source and operative to receive a search request from said subscriber equipment that includes one or more search criteria" is met by Figure 3B, item 375 of Legall. A "user, using a search tool window 302 (e.g., window 375, FIG. 3b), can establish the topics that form elements of a filter 304 that is input to a search engine 306" (Col 3, Lines 11-14). The claimed limitation of initiating "the search of the program guide database based on the one or more search criteria" is met by Figure 2, Item 220. The claimed limitation of the encoding unit and the cable modem are inherent to any bidirectional cable television network. Wang discloses sending information in the form of a program guide page from the provider equipment to said subscriber equipment. "At the receiving side in settop box 24, the MPEG-2 decoder 26 decodes the received MPEG-2 data streams and reconstructs the EPG Web pages retaining HTML format. EPG information is organized

into a group of linked EPG Web pages" (Col 4, Lines 41-45). Figure 4 depicts objects displayed in conjunction with IPG imagery.

In regard to claim 27, Wang discloses an "MPEG-2 digital TV headend and settop box includes a method and apparatus for enabling the presentation of electronic program guide (EPG) information" (Abstract). Wang discloses receiving, from service provider equipment, an interactive program guide (IPG) comprising a plurality of IPG pages conveyed by respective image streams, each of said IPG panes including an object and a respective portion of IPG imagery. "At the receiving side in settop box 24, the MPEG-2 decoder 26 decodes the received MPEG-2 data streams and reconstructs the EPG Web pages retaining HTML format. EPG information is organized into a group of linked EPG Web pages" (Col 4, Lines 41-45). Figure 4 depicts objects displayed in conjunction with IPG imagery. Wang fails to explicitly disclose "an object for receiving search criteria associated with said program guide database", "a controller operative to receive on or more search criteria and generate a request for a search with the one or more criteria" or that "the program guide is searched at the provider equipment". Legall discloses a search tool that enables a user to search an electronic program guide. Legall teaches "an object for receiving search criteria associated with said program guide database", "a controller operative to receive on or more search criteria and generate a request for a search with the one or more criteria" or that "the program guide is searched at the provider equipment" so as to allow a user to "perform searches that can be carried across a variety of information platforms" (Col 1, Lines 26-27). The claimed limitation of "an object for receiving search criteria associated with said program

guide database" is met by Figure 3B of Legall. The claimed limitation of "a controller operative to receive on or more search criteria and generate a request for a search with the one or more criteria" is met by Figure 3B, item 375 of Legall. The search is conducted at the head end. "The power search tool includes query tools for specifying and selecting the filter elements used to perform the search" (Col 2, Lines 62-64). The "search results can be provided by the content-provider so that the receiving user system does not have to perform a search" (Col 5, Lines 44-46). The claimed limitations of a modulator, a demodulator, a transport de-multiplexer, and a decoder are inherent to any bidirectional cable television network. Consequently, it would have been obvious to one of ordinary skill in the art to modify Wang with "an object for receiving search criteria associated with said program guide database", "a controller operative to receive on or more search criteria and generate a request for a search with the one or more criteria" or that "the program guide is searched at the provider equipment" so as to allow a user to "perform searches that can be carried across a variety of information platforms" (Col 1, Lines 26-27).

4. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Legal et al. and in further view of Leary (US Pat No 6,425,133).

In regard to claim 15, the combined teaching of Wang and Legall discloses a search tool that enables a user to search an electronic program guide. The combined teaching fails to explicitly disclose that the search results are received as out-of-band data from the head end. The Leary reference teaches the use of transmitting data from the head end to the set top box on an out-of-band channel so as to conserve bandwidth

(Col 2, Lines 25-67; Col 3, Lines 37-50). Consequently, it would have been clearly obvious to one of ordinary skill in the art to modify the combined teaching with search results that are received as out-of-band data from the head end so as to conserve bandwidth.

In regard to claim 16, the aforementioned combination discloses a search tool that enables a user to search an electronic program guide with data received out-of-band from the head end. The combined teaching fails to explicitly disclose the step providing the search result in the form of compressed data. However, the examiner takes OFFICIAL NOTICE that it is notoriously well known to compress data so as to conserve bandwidth. Consequently, it would have been clearly obvious to one of ordinary skill in the art to modify the combined teaching receiving the search result in the form of compressed data so as to conserve bandwidth.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Legal et al. and in further view of Thomas et al. (US Pat No 5,666,645).

In regard to claim 18, the combined teaching of Wang and Legall discloses a search tool that enables a user to search an electronic program guide. The combined teaching fails to explicitly disclose that the program guide database that is searched is indexed. Thomas et al. teaches the indexing of a database so as to make entries easy to find. "The text fit process is a two stage process including a non-interactive background process that scans the database for work which needs to be done and interactive processes that scan for marked entries that are indexed and easy to find" (Col 7, Lines 27-31). Consequently, it would have been clearly obvious to one of

ordinary skill in the art to modify the combined teaching with an indexed program guide database so as to make entries easy to find.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 703-305-0345. The examiner can normally be reached on M-F: 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W Miller can be reached on 703-305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM
December 7, 2004



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